

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Toshiyuki KASAI

Application No.: New U.S. Patent Application

Filed: October 11, 2001

Docket No.: 110837

For: DRIVING CIRCUIT INCLUDING ORGANIC ELECTROLUMINESCENT
ELEMENT, ELECTRONIC EQUIPMENT, AND ELECTRO-OPTICAL DEVICE

PRELIMINARY AMENDMENT

Director of the U.S. Patent and Trademark Office
Washington, D. C. 20231

Sir:

Prior to initial examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace claims 3-8, 10, 13-18 and 20 as follows:

3. (Amended) A driving circuit according to claim 1, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of at least one of electrodes of each of the organic electroluminescent elements between being connected to a first power source line for supplying a first potential and being connected to a second power source line for supplying a second potential that is lower in level than the first potential.

4. (Amended) A driving circuit according to claim 1, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of a cathode of each of the organic electroluminescent elements between being connected to a first power source line for supplying a first potential and being connected to a second power source line for supplying a second potential that is lower in level than the first potential.

5. (Amended) A driving circuit according to claim 3, wherein the switches are arranged with one switch for each pixel, so that the organic electroluminescent elements are set to be in a reverse-bias state on a pixel-by-pixel basis by controlling the switches.

6. (Amended) A driving circuit according to claim 3, wherein the switches are arranged with one switch for each line of pixels, so that the organic electroluminescent elements are set to be in a reverse-bias state on a line-by-line basis by controlling the switches.

7. (Amended) A driving circuit according to claim 3, wherein the switch is arranged with a single switch for all pixels, so that the organic electroluminescent elements for all pixels are set to be in a reverse-bias state by controlling the switch.

8. (Amended) A driving circuit according to claim 3, wherein the switches are arranged with one switch for each of particular pixels, so that only the organic electroluminescent elements for the particular pixels are set to be in a reverse-bias state by controlling the switches.

10. (Amended) Electronic equipment comprising an active-matrix display device mounted therein that includes the driving circuit according to claim 1.

13. (Amended) An electro-optical device according to claim 11, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of at least one of electrodes of each of the electro-optical elements between being connected to a first power source line for supplying a first potential and being connected to a second power source line for supplying a second potential that is lower in level than the first potential.

14. (Amended) An electro-optical device according to claim 11, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of a cathode of each of the electro-optical elements between being connected to a first power

source line for supplying a first potential and being connected to a second power source line for supplying a second potential that is lower in level than the first potential.

15. (Amended) An electro-optical device according to claim 13, wherein the switches are arranged with one switch for each pixel, so that the electro-optical elements are set to be in a reverse-bias state on a pixel-by-pixel basis by controlling the switches.

16. (Amended) An electro-optical device according to claim 13, wherein the switches are arranged with one switch for each line of pixels, so that the electro-optical elements are set to be in a reverse-bias state on a line-by-line basis by controlling the switches.

17. (Amended) An electro-optical device according to claim 13, wherein the switch is arranged with a single switch for all pixels, so that the organic electroluminescent elements for all pixels are set to be in a reverse-bias state by controlling the switch.

18. (Amended) An electro-optical device according claim 13, wherein the switches are arranged with one switch for each of particular pixels, so that only the electro-optical elements for the particular pixels are set to be in a reverse-bias state by controlling the switches.

20. (Amended) An electro-optical device according to claim 11, wherein the electro-optical element is an organic electroluminescent element.

REMARKS

Claims 1-20 are pending. By this Preliminary Amendment, claims 3-8, 10, 13-18 and 20 are amended to eliminate multiple dependencies. Prompt and favorable examination on the merits are respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Eric D. Morehouse
Registration No. 38,565

JAO:EDM/cmm

Attachment: Appendix

Date: October 11, 2001

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
--

APPENDIX

Changes to Claims:

The following are marked-up versions of the amended claims:

3. (Amended) A driving circuit according to ~~one of claims 1 and 2~~, claim 1, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of at least one of electrodes of each of the organic electroluminescent elements between being connected to a first power source line for supplying a first potential and being connected to a second power source line for supplying a second potential that is lower in level than the first potential.

4. (Amended) A driving circuit according to ~~one of claims 1 and 2~~, claim 1, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of a cathode of each of the organic electroluminescent elements between being connected to a first power source line for supplying a first potential and being connected to a second power source line for supplying a second potential that is lower in level than the first potential.

5. (Amended) A driving circuit according to ~~one of claims 3 and 4~~, claim 3, wherein the switches are arranged with one switch for each pixel, so that the organic electroluminescent elements are set to be in a reverse-bias state on a pixel-by-pixel basis by controlling the switches.

6. (Amended) A driving circuit according to ~~one of claims 3 through 5~~, claim 3, wherein the switches are arranged with one switch for each line of pixels, so that the organic electroluminescent elements are set to be in a reverse-bias state on a line-by-line basis by controlling the switches.

7. (Amended) A driving circuit according to ~~one of claims 3 and 4~~, claim 3, wherein the switch is arranged with a single switch for all pixels, so that the organic

electroluminescent elements for all pixels are set to be in a reverse-bias state by controlling the switch.

8. (Amended) A driving circuit according to ~~one of claims 3 and 4~~, claim 3, wherein the switches are arranged with one switch for each of particular pixels, so that only the organic electroluminescent elements for the particular pixels are set to be in a reverse-bias state by controlling the switches.

10. (Amended) Electronic equipment comprising an active-matrix display device mounted therein that includes the driving circuit according to ~~one of claims 1 through 6~~, claim 1.

13. (Amended) An electro-optical device according to ~~one of claims 11 and 12~~, claim 11, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of at least one of electrodes of each of the electro-optical elements between being connected to a first power source line for supplying a first potentialpotential and being connected to a second power source line for supplying a second potentialpotential that is lower in level than the first potentialpotential.

14. (Amended) An electro-optical device according to ~~one of claims 11 and 12~~, claim 11, wherein the reverse-bias setting circuit comprises a switch which switches an electrical connection state of a cathode of each of the electro-optical elements between being connected to a first power source line for supplying a first potentialpotential and being connected to a second power source line for supplying a second potentialpotential that is lower in level than the first potentialpotential.

15. (Amended) An electro-optical device according to ~~one of claims 13 and 14~~, claim 13, wherein the switches are arranged with one switch for each pixel, so that the electro-optical elements are set to be in a reverse-bias state on a pixel-by-pixel basis by controlling the switches.

16. (Amended) An electro-optical device according to ~~one of claims 13 through 15~~, claim 13, wherein the switches are arranged with one switch for each line of pixels, so that the electro-optical elements are set to be in a reverse-bias state on a line-by-line basis by controlling the switches.

17. (Amended) An electro-optical device according to ~~one of claims 13 and 14~~, claim 13, wherein the switch is arranged with a single switch for all pixels, so that the organic electroluminescent elements for all pixels are set to be in a reverse-bias state by controlling the switch.

18. (Amended) An electro-optical device according to ~~one of claims 13 and 14~~, claim 13, wherein the switches are arranged with one switch for each of particular pixels, so that only the electro-optical elements for the particular pixels are set to be in a reverse-bias state by controlling the switches.

20. (Amended) An electro-optical device according to ~~one of claims 11 through 19~~, claim 11, wherein the electro-optical element is an organic electroluminescent element.